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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/711,913

10/13/2004

Chia-Tsui Lan

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22913 7590 08/06/2008

WORKMAN NYDEGGER  
60 EAST SOUTH TEMPLE  
1000 EAGLE GATE TOWER  
SALT LAKE CITY, UT 84111

EXAMINER

LIANG, LEONARD S

ART UNIT

PAPER NUMBER

2853

MAIL DATE

DELIVERY MODE

08/06/2008

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/711,913	<b>Applicant(s)</b> LAN, CHIA-TSUI	
	<b>Examiner</b> LEONARD S. LIANG	<b>Art Unit</b> 2853	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 10 April 2008.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-5, 7-13 and 25-38 is/are pending in the application.
- 4a) Of the above claim(s) 12 and 13 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-5, 7-11, 25-34 and 36 is/are rejected.
- 7) ☒ Claim(s) 35 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)          | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

**.DETAILED ACTION**

***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 37-38 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

As mentioned in the interview summary, there is confusion as to how the claimed upper body can be capable of being statically positioned at any of a range of angles relative to the housing without relying on a restorative force. It is clear from both the claims and the specification that there is a weight force of the upper body as well as a supporting force provided between the support shaft and support block. It would appear that the supporting force acts as a restorative force. Therefore, it is not clear how the movement of the upper body can be claimed to not rely on a restorative force.

***Claim Objections***

Claim 36 is objected to because of the following informalities: The claims disclose, "a rotation axle attached to the support block and rotatably connected to the housing such that the support block is rotatable with respect to the housing, the wherein the upper body..." This is not grammatically correct. It will be construed that the claim should state "a rotation axle attached to the support block and rotatably connected to

the housing such that the support block is rotatable with respect to the housing, wherein the upper body..." Appropriate correction is required.

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claim 36 is rejected under 35 U.S.C. 102(b) as being anticipated by Aihara et al (US Pat 5210906).

Aihara et al discloses:

- {claim 36} A machine body (figure 1); a housing (figure 1, reference 1); a joint axle attached to the housing (figure 1, reference 32); an upper body attached to the joint axle such that the position of the upper body relative to the housing is adjustable (figure 1, reference 2; upper body attached to joint axle through hinge); and a hinge comprising: a support shaft connected to the upper body (figure 1, reference 5); a support block within which the support shaft is slidingly received (figure 1, reference 4); a rotation axle attached to the support block and rotatably connected to the housing such that the support block is rotatable with respect to the housing, wherein the upper body is capable of being positioned at any of a range of angles relative to the housing due to a frictional relationship

defined by the means for supporting and the support shaft (figure 1, reference 3)

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

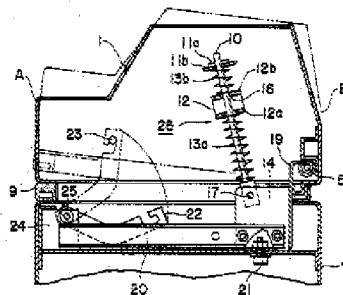
(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-4, 7-8, 11, and 25-29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Miyasaka et al (US Pat 4330219).

Miyasaka et al discloses:

- {claim 1} A machine body (figure 2); a housing (figure 2); an upper body rotatably connected to the housing via a joint axle capable of being positioned at a range of angles relative to the housing (figure 2, reference 1, 17); and a hinge (figure 2, reference 5) comprising a support shaft (figure 2, reference 10) connected to the upper body; and a support block (figure 2, reference 12) connected to the housing, the support block comprising a hole (figure 2, reference 16), and the support shaft passing through the hole (figure 2, reference 10) and capable of moving up and down along the hole (column 1, lines 43-47)

FIG. 2



- {claim 2} wherein the support block is rotatably connected to the housing (figure 2, reference 12)
- {claim 3} wherein the hole is a cylindrical hole and the support shaft is a cylindrical shaft (figure 2, reference 10, 16)
- {claim 4} wherein the area of the cross section of the support shaft is constant over the length of the support shaft (figure 2, reference 10)
- {claim 7} wherein at least one section of the support shaft tightly fits the support block (figure 2, reference 10, 12)
- {claim 8} housing a multi-function peripheral (abstract; the printer is here considered a multi-function peripheral because it can perform multiple functions such as printing and feeding paper)
- {claim 11} wherein the support shaft comprises a cylindrical shaft and wherein the hold comprises a cylindrical hole (figure 2)
- {claim 25} An apparatus (figure 2) comprising: means for coupling an upper body to a housing (figure 2), a support shaft (figure 2, reference 10), wherein the means for coupling comprises means for connecting a support shaft to the upper body (figure 2, reference 10), and means for

supporting the support shaft in a sliding manner (through reference 12), and the means for supporting interfacing with the housing, wherein the upper body is capable of being positioned at any of a range of angles relative to the housing due to a frictional relationship defined by the means for supporting and the support shaft (figure 2)

- {claim 26} further comprising means for rotatably connecting the means for supporting to the housing (figure 2)
- {claim 27} wherein the means for supporting the support shaft comprises a support block that defines a straight hole and the support shaft comprises a straight shaft (figure 2)
- {claim 28} wherein means for supporting the support shaft comprises a support block that defines a straight cylindrical hole and the support shaft comprises a straight cylindrical shaft (figure 2)
- {claim 29} wherein the area of the cross section of the support shaft is constant over the length of the support shaft (figure 2)

Miyasaka et al differs from the claimed invention in that it does not explicitly disclose:

- {claim 1} a support block connected to the housing, the support block defining a hole, the support shaft passing through the hole and capable of moving through the hole while a supporting force caused by friction between the support shaft and the support block generates a moment to the joint axle larger than a moment to the joint axle generated by a weight

of the upper body such that the supporting force is substantially the same at any of a range of angles

- {claim 25} means for supporting the support shaft in a sliding manner, the means for supporting interfacing with the housing, and the support shaft and means for supporting the support shaft generating a moment greater than a moment generated by a weight of the upper body

Although Miyasaka et al does disclose the biasing force of the lower spring 13a to be slightly smaller than the total weight of the upper cover hood so to prevent immediate descent of the cover, it does not appear to necessary limit the invention to such a situation. The spring of Miyasaka et al is disclosed as one example of a power assisting device or balance mechanism. As disclosed in column 1, lines 33-43, "As is well known, the upper cover hood 1 is relatively heavy...Therefore, a power assisting device or balance mechanism is generally provided in order to allow easy opening or closing of the upper cover hood...**A spring device, pneumatic or hydraulic cylinder devices and electrical power movers have been used for this purpose.**" (emphasis mine). Although the spring device is specifically used to prevent immediate descent in this case, it is well known in the power assisting/balancing art to lock and fix items at a certain position covering a wide range of possible movement. This is specifically what devices such as hydraulic cylinders and electrical power movers are used for.

Since a spring device has been taught in Miyasaka et al to be equivalent to such other power assistance devices, it would have been obvious to one of ordinary skill in the art at the time of the invention to configure the power assistance mechanism of



Miyasaka et al so that a supporting force caused by friction between the support shaft and the support block generates a moment to the joint axle larger than a moment to the joint axle generated by a weight of the upper body, thus allowing the supporting force to be substantially the same at any of a range of angles. The motivation for the skilled artisan in doing so is to gain the benefit of granting the user dynamic control over how much the cover needs to be opened.

Claims 5, 10, and 30-31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Miyasaka et al (US Pat 4330219) in view of Clements (US Pat 2148014).

Miyasaka et al discloses, with respect to claims 5, 10, and 30-31, a machine body (as applied to claim 1 above).

Miyasaka et al differs from the claimed invention in that it does not disclose that the material of the support block comprises rubber, nor does it disclose that the material of the support block comprises polyurethane rubber.

Clements discloses a hinge member fixed to a shaft, which contains a block of rubber (column 3, lines 21).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to incorporate the teachings of Clements into the invention of Miyasaka et al. The motivation for the skilled artisan in doing so is to gain the benefit of absorbing shock (column 3, lines 20-21). The combination naturally suggests that the rubber is polyurethane rubber, since polyurethane rubber is a very kind of rubber.

Claims 9 and 32-33 are rejected under 35 U.S.C. 103(a) as being unpatentable over Miyasaka et al (US Pat 4330219) in view of Johnson et al (US Pat 6563598).

Miyasaka et al discloses, with respect to claims 9 and 32-33, a machine body (as applied to claim 1 above), wherein the machine body houses a printer (abstract).

Miyasaka et al differs from the claimed invention in that it does not disclose that the machine body houses a scanner or a multi-function peripheral.

Johnson et al discloses, with respect to claims 9 and 32-33, a multi-function peripheral machine body that houses both a scanner and a printer (abstract).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to incorporate the teachings of Johnson et al into the invention of Miyasaka et al. The motivation for the skilled artisan in doing so is to gain the benefit of obtaining a scanning function.

#### ***Allowable Subject Matter***

Claim 35 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Claim 35 discloses, "further comprising a rotation axle to which the support block is attached, the support block being connected to the housing by way of the rotation axle such that the support block is able to rotate, relative to the housing, about the rotation axis," which was not found, taught, or disclosed in the prior arts.

### ***Response to Arguments***

Applicant's arguments with respect to claims 1-5, 7-13, and 25-38 have been considered but are moot in view of the new ground(s) of rejection.

The applicant's arguments with regard to Miyasaka et al are not persuasive due to the disclosure of Miyasaka as outlined above.

Claim 36 was previously allowed, but upon an update search, new art was found to reject it. However, claim 35, which contains similar subject matter to claim 36 is still objected to. This is because claim 35 depends on claim 1 and the art used to reject claim 36 cannot be properly combined with Miyasaka et al. Nor does the new art used to reject claim 36 disclose the limitation of the friction between the support shaft and the support block generating a moment to the joint axle larger than a moment to the joint axle generated by the weight of the upper body such that the supporting force is substantially the same at any of a range of angles, wherein the upper body is capable of being statically positioned at any of the range of angles relative to the housing due to friction between the support block and the support shaft.

### ***Conclusion***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Sorimachi et al (US Pat 5724683) discloses a hinge mechanism for supporting the seat or the seat lid of a toilet bowl.

Lee (US PgPub 20040228081) discloses an electronic device having a tilting stand.

Jung et al (US PgPub 20040012917) discloses a monitor improved in a tilting structure.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to LEONARD S. LIANG whose telephone number is (571)272-2148. The examiner can normally be reached on 8:30-5 Monday-Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stephen Meier can be reached on (571) 272-2149. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/L. S. L./  
Examiner, Art Unit 2853  
07/31/08

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Supervisory Patent Examiner, Art Unit 2853